

Innovative Dynamics Inc.

IceCap

Road Surface Contamination Sensor

Features

- In-pavement road sensor
- Reliable surface sensing of dry, wet, frost and ice conditions
- Easy integration with existing telematic or data logging systems
- Open communication and data
- Low power consumption
- Low cost

Overview

 $\mathit{IceCap}^{\mathsf{TM}}$ is an in-pavement road condition sensor designed specifically for ITS applications. The sensor allows the monitoring of the pavement status as well as pavement temperature. This system detects traction hazards including ice, snow, or water in real-time. It is an economical solution for many applications such as roadways, pedestrian walkways and runways.

The IceCap utilizes patented E-Field technology advancements to determine surface condition. The system is packaged in a flanged aluminum enclosure intended to be mounted in the shoulder or median of an asphalt or concrete road. The top of the unit is flush with the surface of a shoulder or median.

The resulting data is analyzed and reported in real-time. Ice and water condition, relative ice severity, and surface temperature are provided. Sensor size can be specified by the customer to give desired range of ice and water sensitivity.

The flexible data stream can be integrated with existing telematic systems for easy data transfer to a hand-held or laptop device for real-time monitoring.

Two IceCap Units, Packaged and Ready for Shipping

Applications

- Real-time surface condition data
- Road Weather Monitoring
- Walkway safety
- Equipment Ice Load
- Automatic De-Ice
- Time to Melt Predictive Technology

Output

- Surface condition and temperature
- RS485/RS422 Receiver
- Refresh rate: 3Hz
- Serial Baud Rate: 115200

Specifications

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Dimensions	5.1"x5.1"x2.75"
Weight	2.5 lb
Power	11-24 VDC
Current Consu	mption35mA@12VDC
Operating Air	Temp40°C to 65°C
Surface Temp	±0.5°C@0°C,±1°C@-40° to 85°C